Patent Application No. 10/030,452 Masayuki YABUTA et al.

April 20, 2005 Attorney Docket No. 58777.000008

## Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1-2 (canceled)

Claim 3 (previously presented): The method as defined in Claim 9 or 10 wherein the host cell is a prokaryotic cell or an eukaryotic cell.

Claim 4 (previously presented): The method as defined in Claim 3 wherein the host cell is a microorganism.

Claim 5 (previously presented): The method as defined in Claim 4 wherein the microorganism is *Escherichia coli*.

Claim 6 (currently amended): The method as defined in any one of Claims 9 and 10 wherein the molecular weight of the polypeptide comprising a serine residue is about 1000 to 20000.

Claim 7 (canceled).

Claim 8 (currently amended): The method as defined in Claim 7 any one of Claims 9 and 10 wherein the atrial natriuretic peptide is human natriuretic peptide.

Claim 9 (currently amended): A method for reducing formation of a byproduct polypeptide comprising an O-acetylserine residue in place of a serine residue, comprising:

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- (i) culturing, in a medium, <u>transformed</u> host cells <u>transformed</u> to <u>that</u> produce a recombinant <u>polypeptide</u> <u>atrial natriuretic peptide</u> comprising a serine residue <u>and a byproduct</u> <u>polypeptide comprising an O-acetylserine residue in place of a serine residue; and</u>
- (ii) adding to said medium at least one of histidine, methionine or glycine in an amount effective to reduce said byproduct formation; and
  - (iii) reducing the formation of said byproduct polypeptide.

Claim 10 (currently amended): A method for producing a polypeptide comprising a serine residue comprising:

- (i) culturing, in a medium, transformed host cells in a medium that produce a recombinant atrial natriuretic peptide comprising a serine residue and a byproduct polypeptide comprising an O-acetylserine residue in place of a serine residue; and
- (ii) adding at least one of histidine, methionine or glycine to the medium in an amount effective to reduce said byproduct formation formation of a byproduct polypeptide comprising an O-acetylserine residue in place of a serine residue; and
  - (iii) reducing the formation of said byproduct polypeptide.

Claim 11 (currently amended): A culture medium comprising:

- (i) a <u>transformed</u> host cells <u>transformed</u> to <u>that produce</u> recombinantly express a <u>recombinant polypeptide comprising a serine residue and a byproduct polypeptide comprising an O-acetylserine residue in place of a serine residue;</u>
  - (ii) at least one of histidine, methionine or glycine added to the medium in an amount

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effective to reduce formation of a byproduct polypeptide comprising O-acetylserine residue in place of a serine residue; and

(iii) a reduced formation of said byproduct polypeptide as compared with a control medium with no histidine, methionine or glycine added.

Claim 12 (new): The culture medium of claim 11 wherein the formation of said byproduct polypeptide is reduced in an amount greater than or equal to 50% as compared with said control medium.